

Status of Data Activities at the ORNL DAAC

May 2010 – March 2011

Summary for
User Working Group Meeting
Annapolis, MD
March 9, 2011



Presentation Outline

Status for May 2010– March 2011

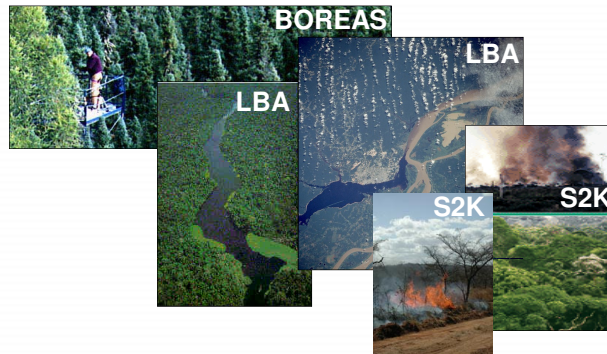
- ☐ Introduction to ORNL DAAC
- ☐ Data Products
- ☐ Tools and Services
- ☐ Upcoming activities
- ☐ User statistics

ORNL DAAC: Data Holdings

Total Data Sets = 893

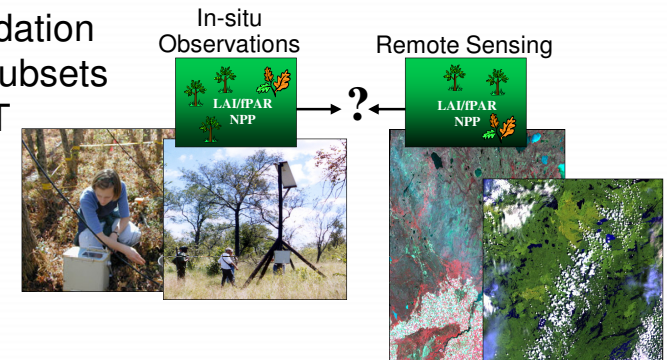
1. Field Campaigns (681)

- FIFE
- OTTER
- SNF
- BOREAS
- LBA



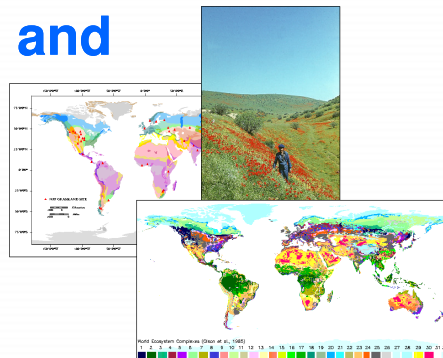
2. Validation of Land Products (21)

- Land Validation
- MODIS Subsets
- FLUXNET
- NPP
- BigFoot



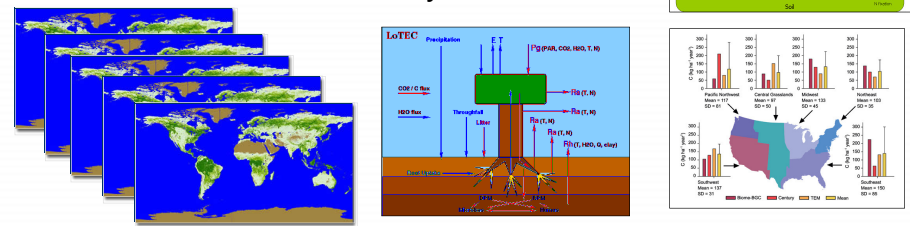
3. Regional and Global Studies (181)

- Climate
- Soils
- Vegetation
- Hydroclimatology



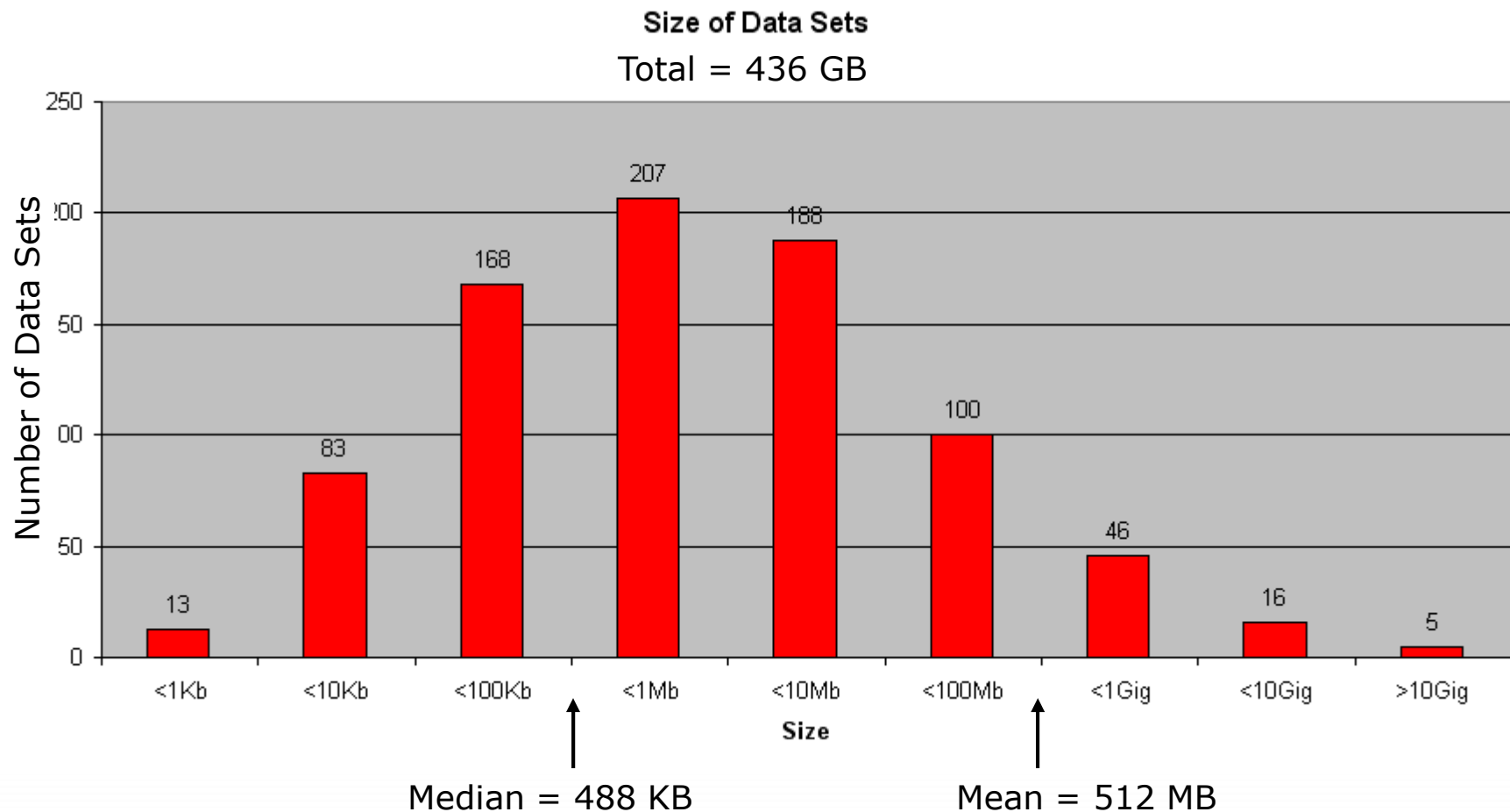
4. Model Products (9)

- Benchmark Models
 - IBIS, BIOME-BGC, LSM
- Manuscript Models
 - PNeT, Century, Biome-BGC



Data Characteristics

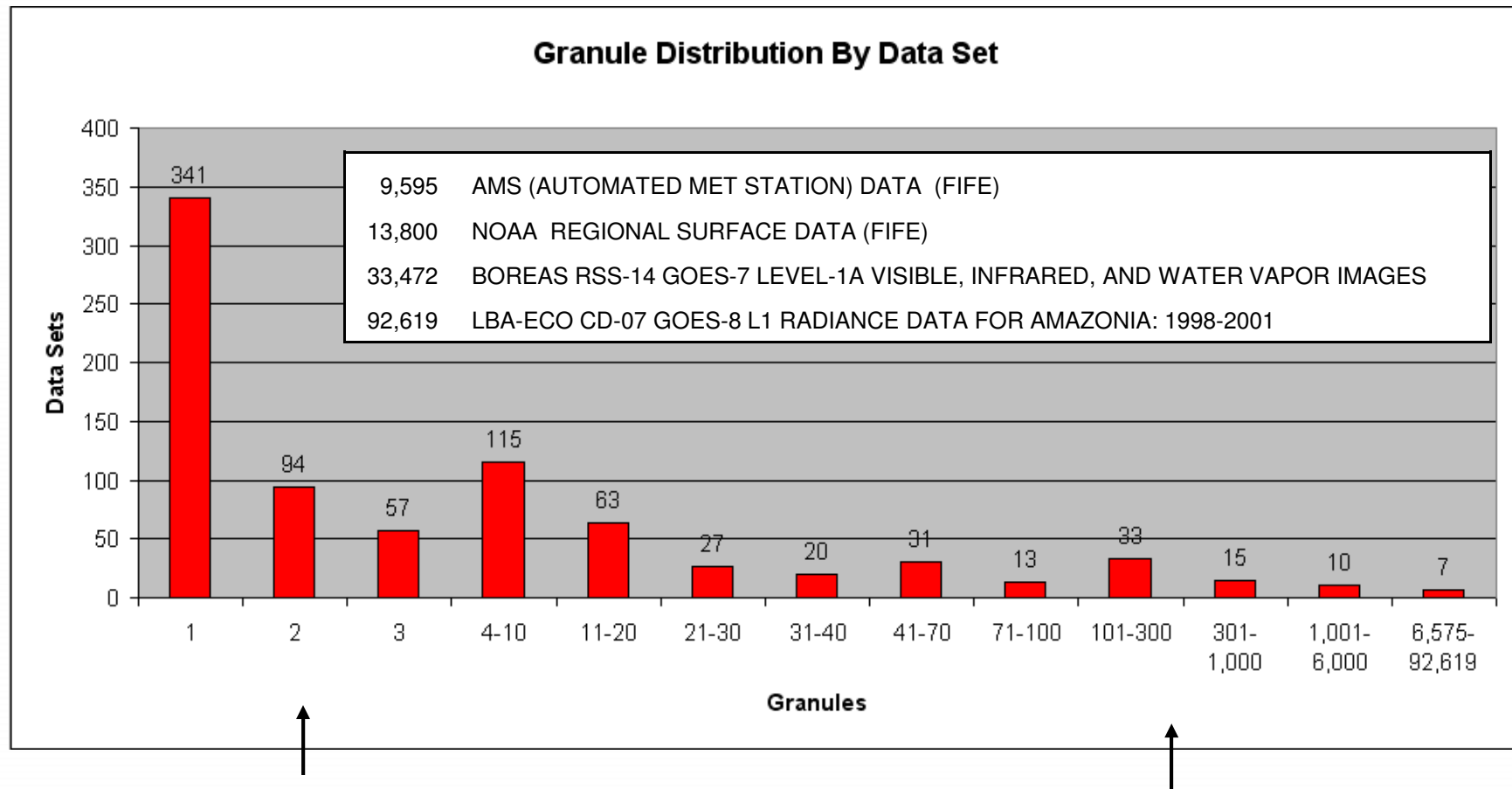
Size Distribution of Data Sets



589	SAFARI 2000 ANNUAL SOIL RESPIRATION DATA (RAICH AND SCHLESINGER 1992)
154,703,764,100	SAFARI 2000 MODIS AIRBORNE SIMULATOR DATA, SOUTHERN AFRICA, DRY SEASON 2000

Data Characteristics

Number of files (granules) per data set



Data Archive:

ORNL DAAC Data Processing and Support

☐ Acquisition

- identify how best to serve the scientific community
- establish how and when to acquire data
- plan to distribute data

☐ Ingest

- perform QA checks
- compile project-provided metadata
- generate additional metadata

☐ Enhance (as requested)

- add supplementary variables
- standardize to common units
- aggregate files

☐ Documentation

- collect available documentation and write documentation for each data set, as needed

☐ Distribution

- advertise data
- provide data access to users worldwide

☐ Post-Project Data Support

- provide long-term secure archiving of the data
- serve as a buffer between end users and PIs
- provide usage statistics
- survey users about major projects (e.g., FIFE and BOREAS)

☐ Stewardship

- media refresh, security, disaster recovery

☐ User Working Group

- science panel that provides advice on all aspects of the DAAC

Provide “Best Practices for Preparing Ecological Data to Share”

❑ Cook et al. 2001 *Bulletin ESA* 82: 138 – 141

❑ Best Practices include:

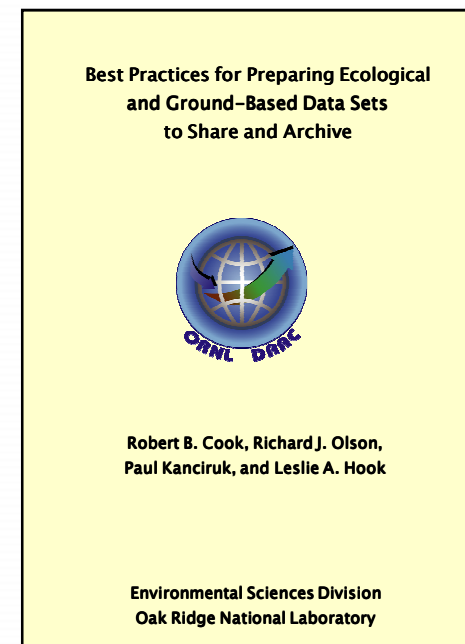
1. Assign Descriptive File Names
2. Use Consistent and Stable File Formats
3. Define the Parameters
4. Use Consistent Data Organization
5. Perform Basic Quality Assurance
6. Assign Descriptive Data Set Titles
7. Provide Documentation

❑ Update on-line:

http://daac.ornl.gov/PI/pi_info.html

❑ Workshops at ESA 2010 & 2011 (with DataONE)

❑ Workshop at AGU 2010 with ESIP



LBA-ECO Status



- Large-Scale Biosphere-Atmosphere Experiment in Amazonia Ecology Program, currently in Synthesis and Integration (Phase 3); CY 2011 will be a ramping down year for LBA-ECO.
- ORNL DAAC ingested 10 new data sets this FY
- LBA-ECO evaluating remaining data for archival in Brazil and at the ORNL DAAC

Status	Number
Archived LBA Regional & others	35
Archived LBA-ECO	71
In process (at ORNL DAAC)	90
In preparation (at LBA-ECO)	103
In preparation (at PIs)	48
Total	341

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ORNL DAAC Tools and Services

- ❑ Provide access to spatial data for diversity of ORNL DAAC Users
- ❑ Tools
 - MODIS Subsetting Tools
 - Spatial Data Access Tool (SDAT)
 - Technology Infusion Projects
 - SAR Data
 - MODIS and ASTER Data



MODIS Land Product Subsetting Tools

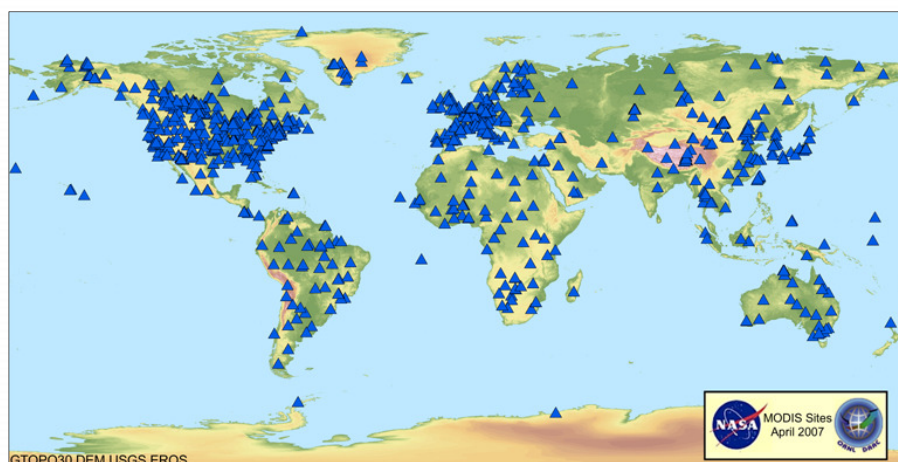
- In a scale and format (text, GeoTIFF) useful for field researchers

Three methods to obtain subsets

1. Tool for 1,147 selected sites
2. Tool for any user selected location on demand
 - User selects product, time period, location, and area (1 x 1 km up to 200 x 200 km) worldwide and for user-selected time periods
3. WebService
 - Programmatically obtain MODIS subsets for any land location, time period and area (from 1 pixel up to 201 x 201 km) using a standards based SOAP Web Service

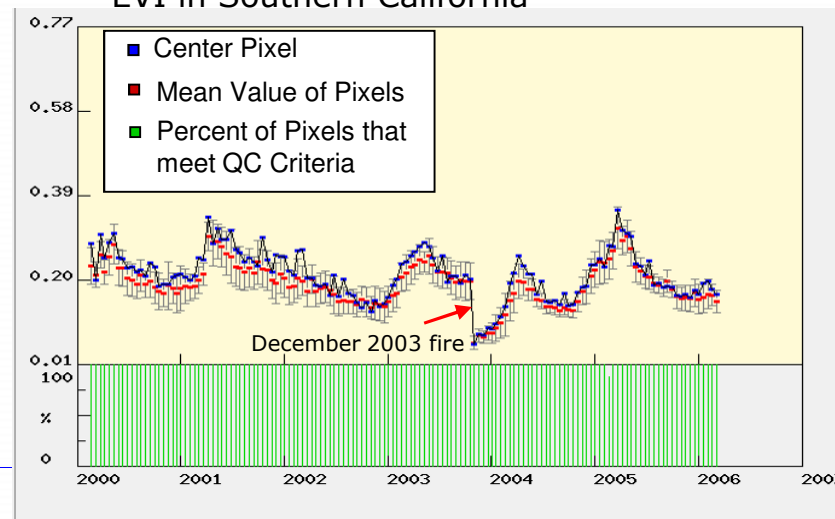
MODIS Land Products (C5) at ORNL DAAC

Surface Reflectance	(MOD09A1)
Surface Temperature	(MOD11A2)
Land Cover	(MCD12Q1)
Vegetation Phenology	(MCD12Q2)
NDVI / EVI	(MOD/MYD13Q1)
LAI / fPAR	(MOD / MYD15A2)
Net Photosynthesis	(MOD17A2)
Annual NPP	(MOD17A3)
Albedo (calc)	(from MCD43A1,2)
Reflectance – BRDF Adjusted	(MCD43A2,4)



1,147 field sites for MODIS Collection 5

EVI in Southern California



Second Tool: Global Tool for any Location on Earth



MODIS Global Subsets: Data Subsetting and Visualization

Select Center of Area of Interest
Lat/Lon OR Field Site
then Continue

Click and drag the balloon to select Center Pixel

Map

Satellite

Hybrid

North America

Europe

Asia

Africa

South America

Atlantic Ocean

Pacific Ocean

Indian Ocean

POWERED BY Google

OR

Select the Country to Contain a MODIS Site as the Center Pixel
[Sites within the Selected Country will be Presented in Subsequent Choices]

Algeria

Angola

Antarctica

Argentina

Australia

Austria

Enter Signed Decimal Latitude and Longitude of Center Pixel in $^{\circ}$ N or S and $^{\circ}$ E or W
[for example, Walker Branch TN is 35.958767 -84.182293]

Latitude

Longitude

Example

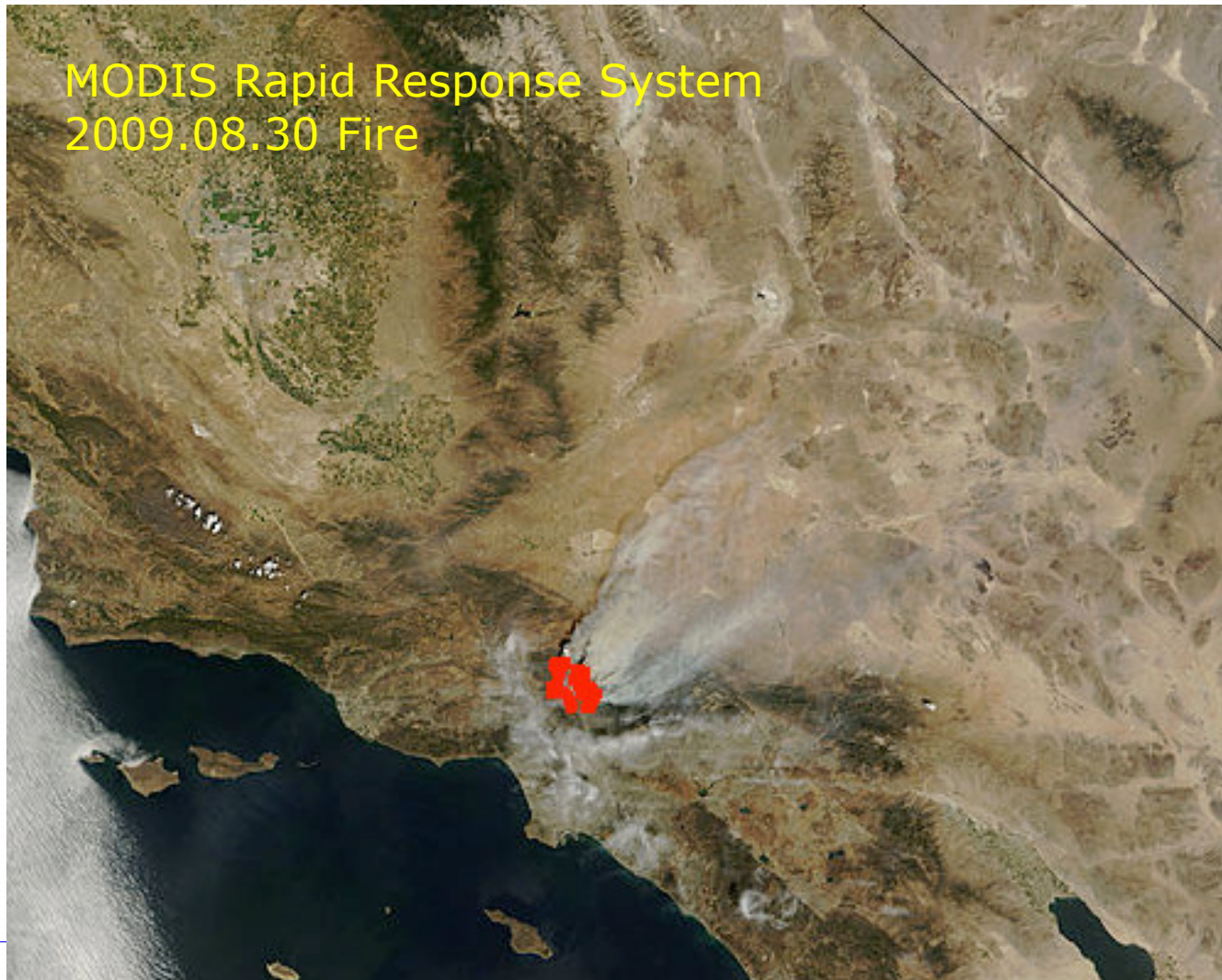
Site in California

34.291371, -118.199

Continue

Restart this Visualization

Wildfires near Los Angeles, California





MODIS Global Subsets: Data Subsetting and Visualization

MODIS/Terra Vegetation Indices ([NDVI/EVI](#))

16-Day L3 Global 250m SIN Grid [Collection 5]

Latitude [-10.185] Longitude [-63.67]
1km Horizontal Tile [11] Vertical Tile [10] Sample [880] Line [22]

250m Horizontal Tile [11] Vertical Tile [10] Sample [3519] Line [88]

The Requested Data Area is Approximately 100.25 Kilometers Wide and 100.25 Kilometers High

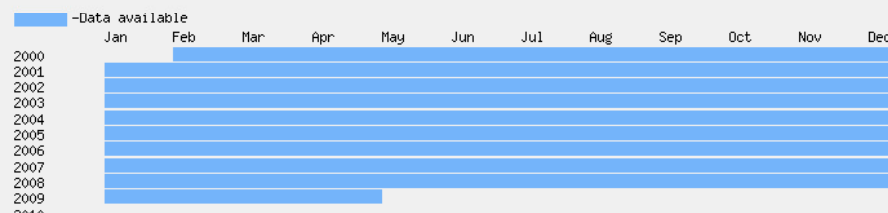
Select Starting Date

Day 049 of the Year 2000 [Feb. 18,2000]
Day 065 of the Year 2000 [Mar. 05,2000]
Day 081 of the Year 2000 [Mar. 21,2000]
Day 097 of the Year 2000 [Apr. 06,2000]
Day 113 of the Year 2000 [Apr. 22,2000]
Day 129 of the Year 2000 [May. 08,2000]
Day 145 of the Year 2000 [May. 24,2000]
Day 161 of the Year 2000 [Jun. 09,2000]
Day 177 of the Year 2000 [Jun. 25,2000]
Day 193 of the Year 2000 [Jul. 11,2000]

Select Ending Date

Day 321 of the Year 2008 [Nov. 16,2008]
Day 337 of the Year 2008 [Dec. 02,2008]
Day 353 of the Year 2008 [Dec. 18,2008]
Day 001 of the Year 2009 [Jan. 01,2009]
Day 017 of the Year 2009 [Jan. 17,2009]
Day 033 of the Year 2009 [Feb. 02,2009]
Day 049 of the Year 2009 [Feb. 18,2009]
Day 065 of the Year 2009 [Mar. 06,2009]
Day 081 of the Year 2009 [Mar. 22,2009]
Day 097 of the Year 2009 [Apr. 07,2009]

[Pre-selected Dates Reflect ALL Available Dates for the Selected Product/Location]



GeoTIFF Options

- ☒ Do not generate GeoTIFF
- ☐ Generate GeoTIFF in MODIS Sinusoidal Projection
- ☐ Generate GeoTIFF and Reproject to Geographic Lat/long

Enter Your Email Address

[You will be notified via email when the data has been prepared]

cookrb@ornl.gov

Continue

Restart this Visualization

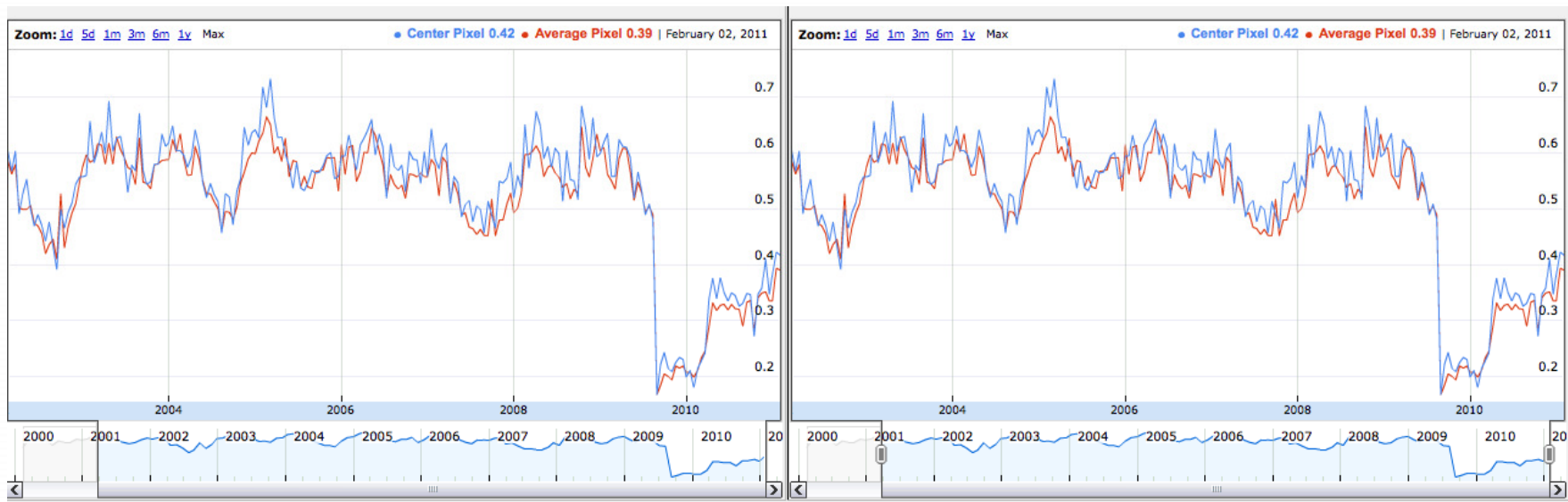
| [MODIS Field Site Subsets](#) | [ORNL DAAC](#) | [NASA](#) | [ORNL](#) | [Privacy Policy and Important Notices](#) | [Help/Question](#) | [Rate Us](#) |

Website maintained by the Oak Ridge National Laboratory for the National Aeronautics and Space Administration.

Tel: +1 (865) 241-3952 or E-mail: [USO](#)

Can select
GeoTIFF, in
addition to text
(ASCII)

MODIS Subsets: interactive time series



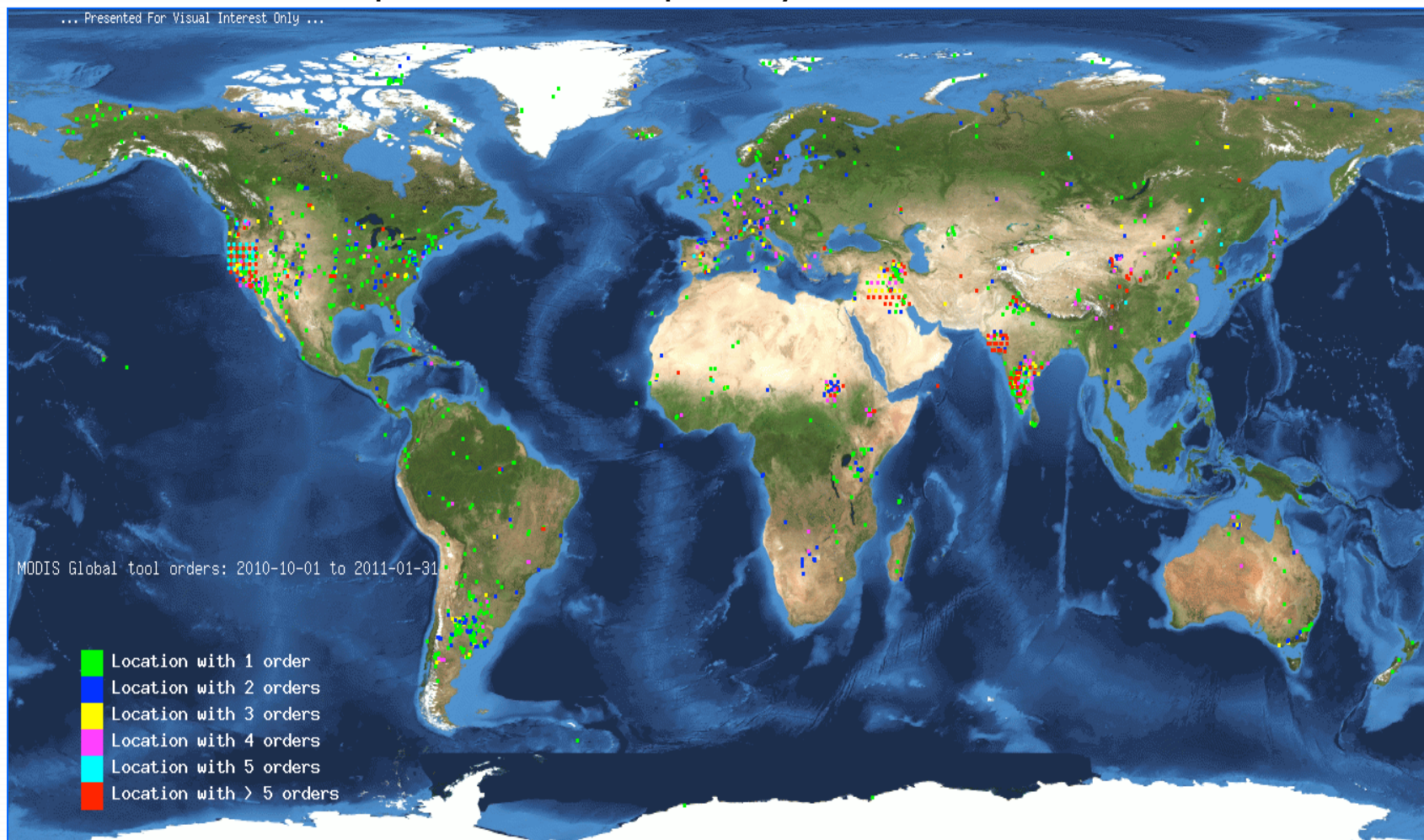
Demonstration

Based on Google Finance APIs and Tools

MODIS Global Tool Orders

October 1, 2010 – January 31, 2011

462 Users downloaded ~3 TB subsets
Corresponds to ~10 petabytes of MODIS Tiles



Use of MODIS Subsets

- ❑ Intercomparison and validation
 - Comparison with field sites and other remote sensing data
- ❑ Grad and undergrad classes
 - Faiz Rahman, Tristan Quaife, Kirsten de Beurs, Alfredo Huete, Jim Randerson, David Roy, Crystal Schaaf, and others
- ❑ HoneyBee Network (NASA)
 - MODIS NDVI phenology and honey bee activity
- ❑ Cornell Lab of Ornithology and DataONE (NSF)
Bird Occurrence Maps
 - Bird observations and environmental variables (e.g., MODIS NDVI phenology) used to model bird occurrence in con-US

Spatial Data Access Tool (SDAT)

- ❑ Open Geospatial Consortium (OGC) standards-based Web application for geospatial data visualization and download

data set list

Available Data Sets

Filter Data Sets by Keywords

- 8 km Global Land Cover Data Set Derived from AVHRR
- AMAZON RIVER BASIN PRECIPITATION, 1972-1992
- Bailey Ecoregions Map of the Continents (Reprojected)
- BIGFOOT LEAF AREA INDEX SURFACES FOR NORTH AND SOUTH AMERICA, 2000-2003

AMAZON RIVER BASIN PRECIPITATION, 1972-1992

The precipitation data is 0.2 degree gridded monthly precipitation data based upon monthly rain data from Peru and Bolivia and daily rain data from Brazil. The extent of the data ranges from 5.2N and -20.0S to -49.4W to -79.6W

Granule Name	Metadata	Preview Image
Amazon Rain fall 1972 (All months)	Projection: WGS 84 Spatial Extent: N: 5.2, S: -20, E: -49.4, W: -79.6 Start Date/Time: 1972-01-01T00:00 End Date/Time: 1972-12-31T23:59	
Amazon Rain fall 1973 (All months)	Projection: WGS 84 Spatial Extent: N: 5.2, S: -20, E: -49.4, W: -79.6 Start Date/Time: 1973-01-01T00:00 End Date/Time: 1973-12-31T23:59	
Amazon Rain fall 1974 (All months)	Projection: WGS 84 Spatial Extent: N: 5.2, S: -20, E: -49.4, W: -79.6 Start Date/Time: 1974-01-01T00:00 End Date/Time: 1974-12-31T23:59	

data file (granule) list

National Land Cover Database 2001 (NLCD 2001)

- Collection: National Land Cover Database 2001 (NLCD 2001)
- Native Projection: USA Contiguous Albers Equal Area Conic (EPSG:1020031)
- Spatial Extent: N: 3180435.0, S: 256035.0, E: 2266845.0, W: -2364615.0
- Map Units: meters
- Resolution: 30.30
- Start Date/Time: N/A
- End Date/Time: N/A
- Data Units: no unit
- Scale Factor: 1

Data Customization and Download

Coverage: National Land Cover Database 2001 (NLCD 2001)

Use the map to select a region as the spatial extent to subset data. Select Region function activated.

Projection: USA Contiguous Albers Equal Area Conic

Resolution (x, y): 30 30

Format: GeoTIFF (BYTE)

Time: All

Bands: All

Interpolation Method: Nearest Neighbor

Spatial Extent: 2457458.33 381651.666 1031519.33 1970058.33

OGC WCS Requests: Show GetCapabilities, Show DescribeCoverage

OGC WMS Requests: Show GetCapabilities, GetMap Request

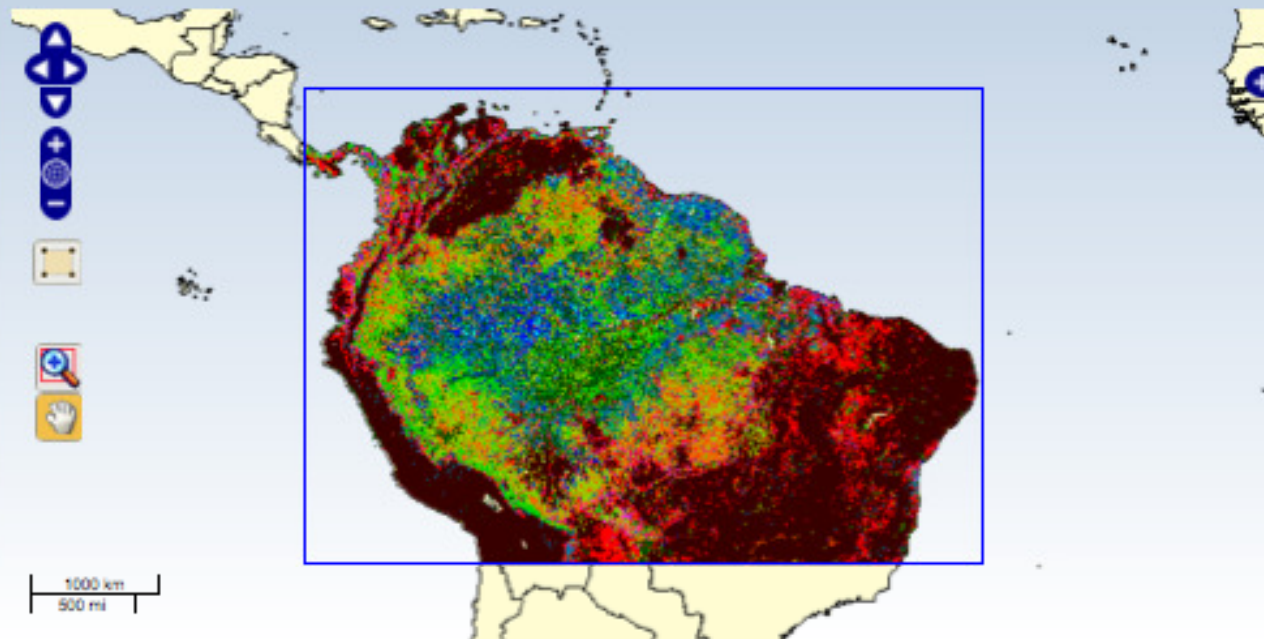
Download Reset


granule visualization & access

Data Customization and Download

Coverage: AMAZON BASIN ABOVEGROUND LIVE BIOMASS DISTRIBUTION MAP: 1990-2000

Get This Map



Use  to select a region as the spatial extent to subset data

☐ Enhance Image Display

[+] Show Legend

Opacity: 0 1

Projection: [?]

Resolution (x, y): degrees

Spatial Extent *:

Format:



Time:

Bands:

Interpolation Method:

* East and North bounds are adjusted automatically to make width/height to be integer multiple of resolution x/y

OGC WCS Requests:

[\[+\] Show GetCapabilities](#)

[\[+\] Show DescribeCoverage](#)

OGC WMS Requests:

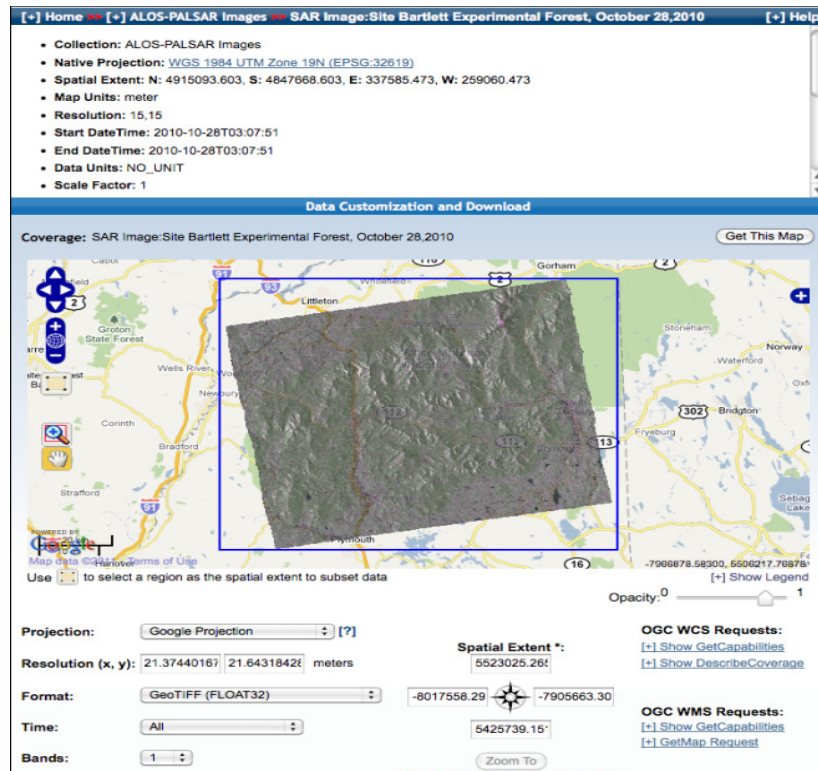
[\[+\] Show GetCapabilities](#)

[\[+\] GetMap Request](#)

Above
Ground Live
Biomass
(1990-2000)

Tech Infusion Project

Provide SAR data for selected field sites (n = 42)



Data provided in SDAT Tool, based on OGC standards for Web Map Server and Web Coverage Server

Goal: to increase terrestrial ecology users' understanding of SAR data and promote its use:

- soil moisture, climatology (ice on/ice off), and biomass structure
- Collaboration with Alaska Satellite Facility and NSIDC
- PALSAR (Phased Array type L-band Synthetic Aperture Radar) sensor data from the Advanced Land Observing Satellite (ALOS)

Tech Infusion Project

Provide SAR data for selected field sites



The screenshot shows the FLUXNET website interface. At the top is a banner with the FLUXNET logo and the text "Integrating Worldwide CO₂ Flux Measurements". Below the banner is a navigation bar with links: "About FLUXNET", "Obtain Data", "Submit Data", "Resources", "Regional Websites", and "Help". The main content area is titled "Bartlett Experimental Forest, NH USA" and includes a link to a "Printer-Friendly Version". Under "General Site Information", there is a list of site details: FLUXNET Site Code (US-Bar), Latitude (44.0646397), Longitude (-71.288077), Koeppen-Geiger Climate Type (Cold/Without_Dry_Season / Cold_Summer), Site History, Vegetation type (Temperate northern hardwood forest), Land Cover - MODIS IGBP Classification (Deciduous Broad-leaf Forest), Website(s) (External Site Link), Data access (Network) (Network Directory), and MODIS Land Product Subset visualization. There are also images of SAR data subsets and a phenology image. A map of the site is shown in the bottom right corner, with a red pin indicating the location. The map is labeled "Google Maps", "Virtual Earth", and "Landsat-JPL".

FLUXNET
Integrating Worldwide CO₂ Flux Measurements

About FLUXNET » Obtain Data » Submit Data » Resources » Regional Websites » Help »

Bartlett Experimental Forest, NH USA

[Printer-Friendly Version](#)

General Site Information

- **FLUXNET Site Code:** US-Bar
- **Latitude, decimal degrees:** 44.0646397
- **Longitude, decimal degrees:** -71.288077
- **Koeppen-Geiger Climate Type:** Cold/Without_Dry_Season / Cold_Summer
- **Site History:** Bartlett Experimental Forest (BEF) has been an established US Forest Service Experimental Forest. The site is part of the North American Carbon Program. Long-term data on forest growth and composition is available as well as remote sensing studies.
- **Vegetation type:** Temperate northern hardwood forest
- **Land Cover - MODIS IGBP Classification:** Deciduous Broad-leaf Forest
- **Website(s):** [External Site Link](#)
- **Data access (Network):** [Network Directory](#)
- **MODIS Land Product Subset visualization**



- **ALOS-PALSAR Synthetic Aperture RADAR subsets :**



- **Phenology Image (1)**



Image provided by <http://phenocam.unh.edu>

- **Years of Data Collection:** 2004 - 2010
- **Current Status:** Active

[Primary Investigator\(s\)](#)

- ALOS PALSAR Subset added to FLUXNET site page
- Next steps: Develop tutorials on how to use SAR data, with UWG Members
- Lower level products available from ASF

File-level search of MODIS and ASTER at LP DAAC

The screenshot shows the LP DAAC Metadata Clearinghouse search interface. At the top, there are logos for USGS (science for a changing world), NASA, and LP DAAC (LAND PROCESSES DISTRIBUTED ACTIVE ARCHIVE CENTER). Navigation links for USGS Home, Contact USGS, and Search USGS are in the top right. The main heading is "LP DAAC Metadata Clearinghouse".

The interface is divided into three main search sections:

- Simple Search:** Features a "Search For:" text input field, a "Results/Page" dropdown set to 10, and a "SEARCH" button. A hint below reads: "Hint: boolean operators, wildcards and phrases are allowed. ex: precipitation or (rain" and "moisture content")".
- Advanced Search:** Includes a "Fielded Search" section with a "FullText" dropdown and a text input field, and a "Search by Date Range" section with "during" and "thru" date pickers (format mm/dd/yyyy). Both have "Help" and "clear" links.
- Geographic Search:** Features a world map with a "List Areas In:" dropdown (set to USA) and a "Select from:" dropdown. Below the map are checkboxes for "Search Area:" (North, West, East, South) and a "Terms of Use" link. A note at the bottom says "Click on [map icon] to select an area".

At the bottom, a "Query being built:" section shows "Not Editable" and a "Results/Page" dropdown set to 50. It includes "SEARCH", "CLEAR QUERY", and "HELP" buttons.

Goal: Search tool for all MODIS and ASTER Records

- Based on ORNL DAAC's Advanced Search Tool (Mercury)
- Collection and file metadata placed in Mercury system
- Currently in beta test

<http://mercury.ornl.gov/lpdaac/>

Advanced Search

Fielded Search

FullText

leaf area index

[Help](#) | [clear](#)

Search by Date Range

during

4/01/2010

mm/dd/yyyy

thru

5/1/2010

mm/dd/yyyy

[Help](#) | [clear](#)

Geographic Search



List Areas In:
USA ☒ WORLD ☐

Tennessee

Search Area:

[overlaps](#) ☒ [encloses](#) ☐

North

37.12

West East

-90.74

-81.22

South

34.56

[Help](#) | [clear](#)

Query being built:

fullText = leaf area index overlaps coordinates (N,W,S,E) = (37.12,-90.74,34.56,-81.22)
during: 4/01/2010 to 5/1/2010

Not Editable

LPDAAC Metadata Clearinghouse

[Modify search](#)

Metadata Summary

[Bookmark](#)[Email](#)[Help](#)

Your search found: 2 documents.

Query: (text : leaf text : area text : index) overlaps coordinates (N,W,S,E)= (37.12,-90.74,34.56,-81.22) during 4/01/2010 to 5/1/2010

Filter by project

[modis aqua \(1\)](#)[modis terra \(1\)](#)

Filter by lpdaac_versionID

[5 \(2\)](#)

Filter by keywords

[Earth Observing System Data and Information System \(EOSDIS\) \(2\)](#)
[climatology/meteorology/atmosphere \(2\)](#)
[daac \(2\)](#)

Filter by lpdaac_shortcode

[mod15a2 \(1\)](#)[myd15a2 \(1\)](#)

viewing Documents 1 - 2 out of 2

[Prev](#) [Next](#)

Sort By: [Index Rank](#) [Period of record](#) [Source](#) [Project](#)

[MODIS/AQUA LEAF AREA INDEX/FPAR 8-DAY L4 GLOBAL 1KM SIN GRID V005](#)

Date: 01/01/1972 - 01/01/2011 **Datasource:** LPDAAC - MODIS AND ASTER PRODUCTS **Project:** MODIS AQUA

The MODIS/Terra Leaf Area Index (LAI) product (MYD15A2) is produced using the LAI variable to define the number of equivalent layers of leaves relative to a unit of ground area and is a value between zero and 12 within the global gridded database. The fraction photosynthetically active radiation (FPAR) variable measures the proportion of available radiation in the photosynthetically active wavelengths that are absorbed by a canopy (0.4 to 0.7 micrometer). Values for FPAR range between 0.0 and 1.0 and are assigned to each 1-kilometer cell of the global gridded data base. These MODerate-resolution...

★★★★★★★★★★

[Get granules](#)[Find similar data](#)[View full metadata](#)

[MODIS/TERRA LEAF AREA INDEX/FPAR 8-DAY L4 GLOBAL 1KM SIN GRID V005](#)

Date: 01/01/1972 - 01/01/2011 **Datasource:** LPDAAC - MODIS AND ASTER PRODUCTS **Project:** MODIS TERRA

The MODIS/Terra Leaf Area Index (LAI) product (MOD15A25) is produced using the LAI variable to define the number of equivalent layers of leaves relative to a unit of ground area and is a value between zero and 12 within the global gridded database. The fraction photosynthetically active radiation (FPAR) variable measures the proportion of available radiation in the photosynthetically active wavelengths that are absorbed by a canopy (0.4 to 0.7 micrometer). Values for FPAR range between...

★★★★★★★★★★

[Get granules](#)[Find similar data](#)[View full metadata](#)

LPDAAC Metadata Clearinghouse

[Back](#) [Modify search](#)

[<-PREV](#) [NEXT->](#) Results to display: 10

Find: [Clear](#)

Sort Lists by Alphabetical Order

SC:MOD15A2.005:2078920879

Dataset ID : MODIS/Terra Leaf Area Index/FPAR 8-Day L4 Global 1km SIN Grid V005

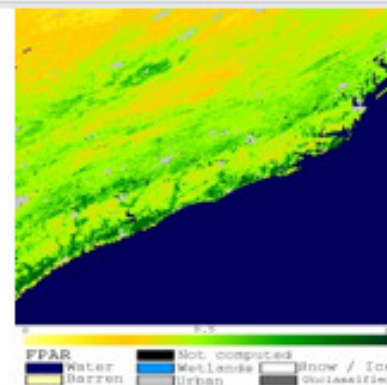
Granule Size (bytes) : 2094520.1

Temporal Extent

Start Time : 2010-03-30T00:00:00.000Z End Time : 2010-04-06T23:59:59.000Z

Spatial Extent

Polygon : (29.845932, -80.76578), (40.0, -91.37851), (40.053955, -78.11057), (29.891994, -69.03681)



[Download Granule](#)

SC:MOD15A2.005:2078934967

Dataset ID : MODIS/Terra Leaf Area Index/FPAR 8-Day L4 Global 1km SIN Grid V005

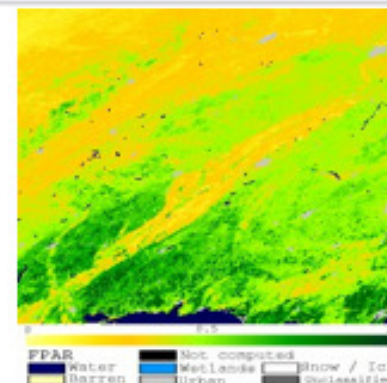
Granule Size (bytes) : 3403363.0

Temporal Extent

Start Time : 2010-03-30T00:00:00.000Z End Time : 2010-04-06T23:59:59.000Z

Spatial Extent

Polygon : (29.841087, -92.30125), (40.0, -104.43259), (40.063786, -91.17409), (29.896189, -80.57757)



[Download Granule](#)

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ORNL DAAC to archive data from Earth Venture Sub-Orbital Investigation (EV-1)

1. CARVE: Carbon in Arctic Reservoirs Vulnerability Experiment (*Chip Miller, JPL*)
2. AirMOSS: Airborne Microwave Observatory of Subcanopy and Subsurface (*Mahta Moghaddam, Univ Michigan*)



Field Campaigns Future Activities:



From Field Campaign Subcommittee:

- ❑ For upcoming missions, the DAAC can assist in compiling ground-based data
 - Northern field campaign associated with SMAP
- ❑ DAAC should be involved in NASA TE field campaign scoping exercises
 - Savanna (Niall Hanan, Colorado State)
 - High northern latitude (Eric Kasischke, UMd)

Field Campaigns

North American Carbon Program



- ❑ NACP data are being finalized for archival
 - Asner (Carbon storage in southern Utah)
 - North American Forest Disturbance and Regrowth: Phase 1 (Goward, PI)

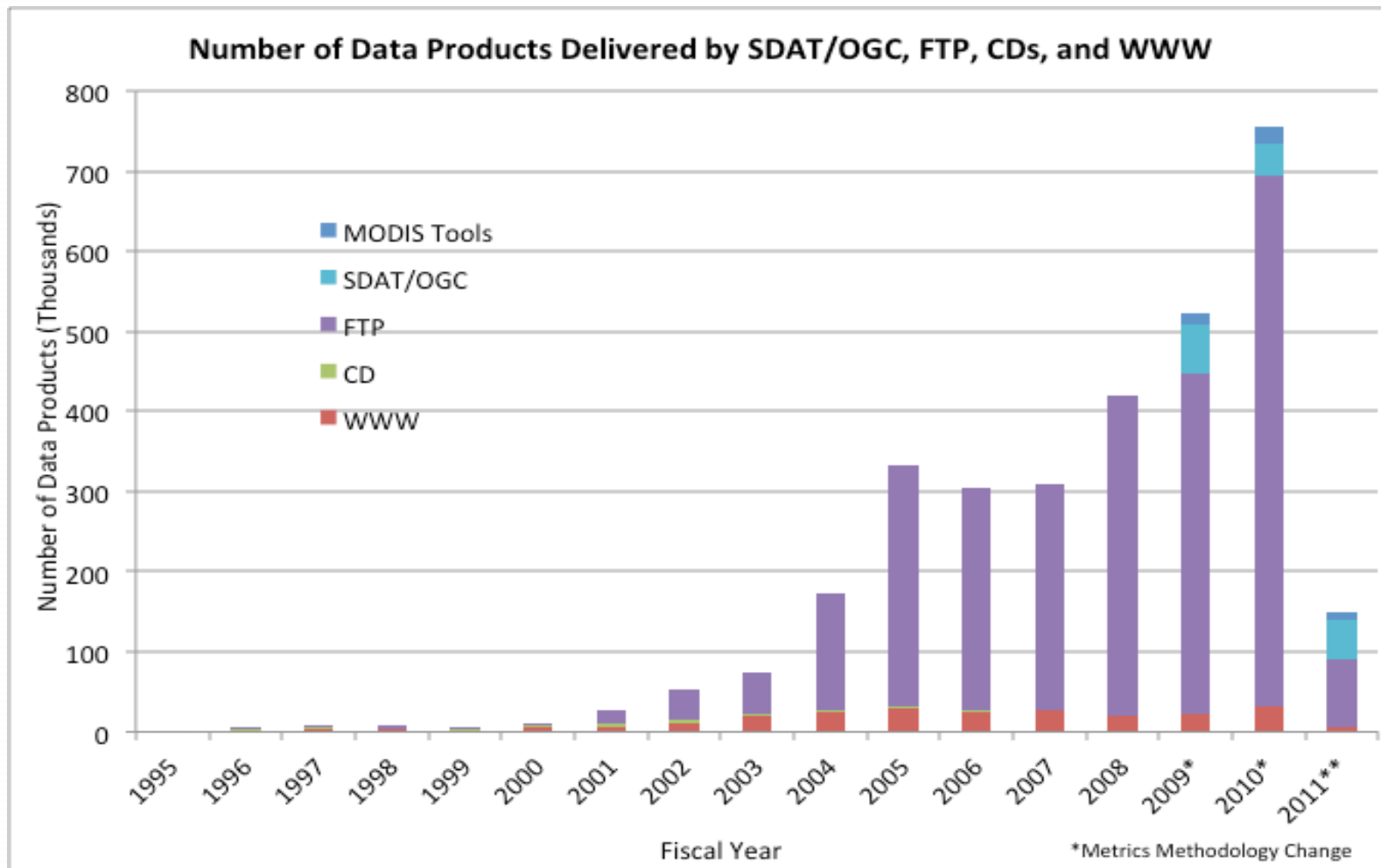
- ❑ ORNL staff are playing a key role in NACP synthesis
 - Modeling and Synthesis Thematic Data Center (Cook, PI)
 - Coordinating Site and Regional Synthesis Activities and Preparing data products for synthesis
 - MsTMIP (Multi-scale Synthesis and Terrestrial Model Intercomparison Project)

Presentation Outline

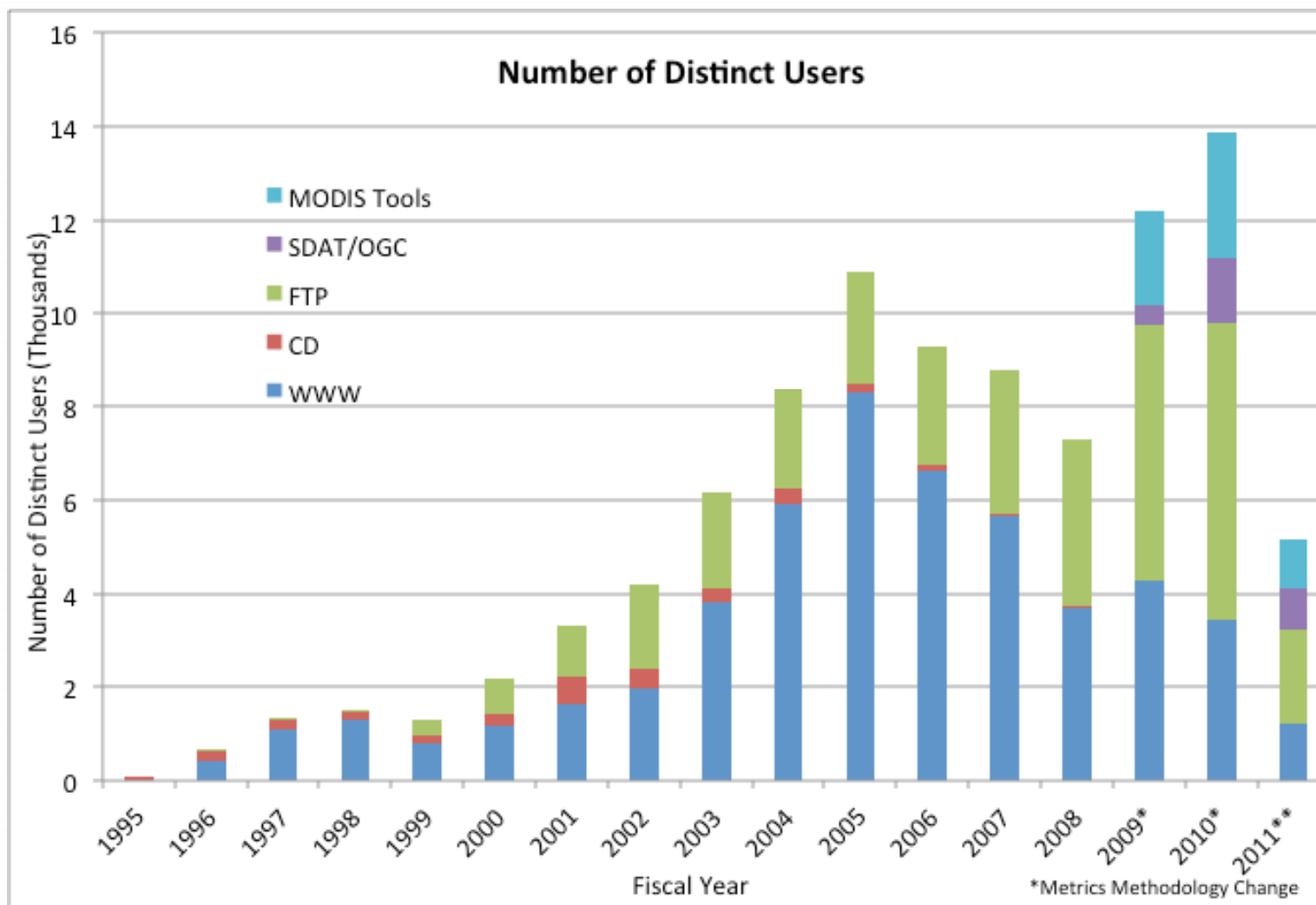
Status for May 2010– March 2011

- ☐ Introduction to ORNL DAAC
- ☐ Data Products
- ☐ Tools and Services
- ☐ Upcoming Activities
- ☐ User statistics

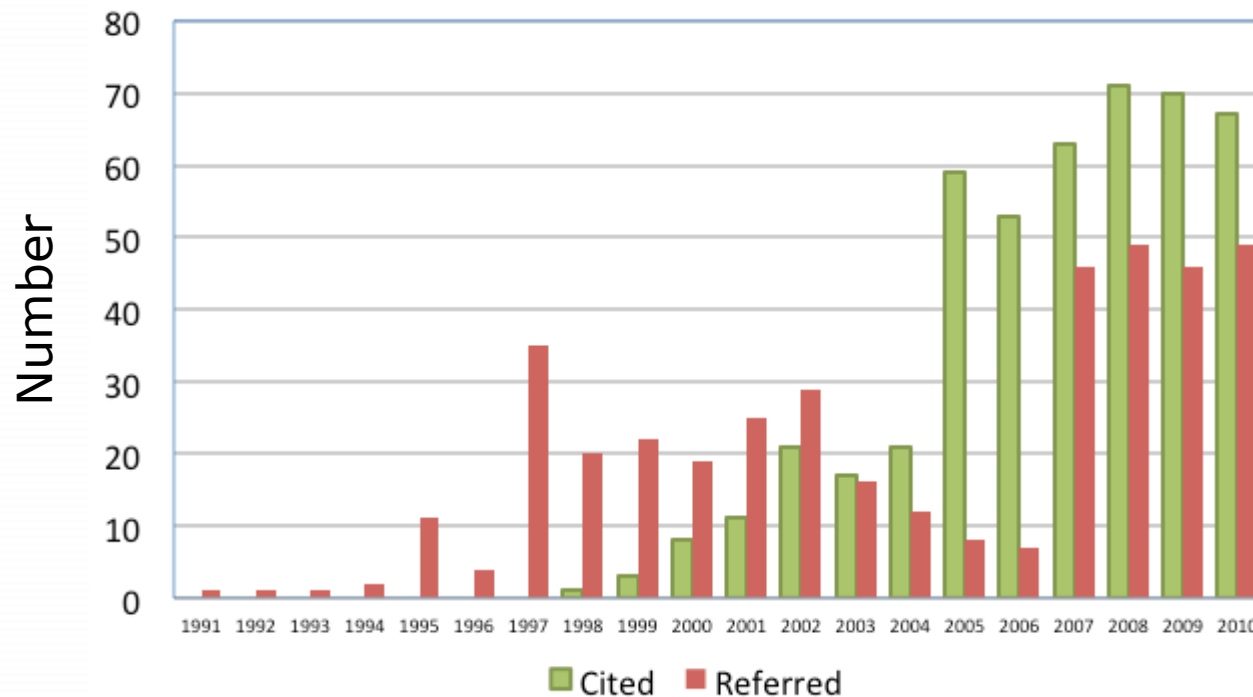
Data Products Delivered



Number of Distinct Users



Scientific Impact of ORNL DAAC: Data Products used in literature

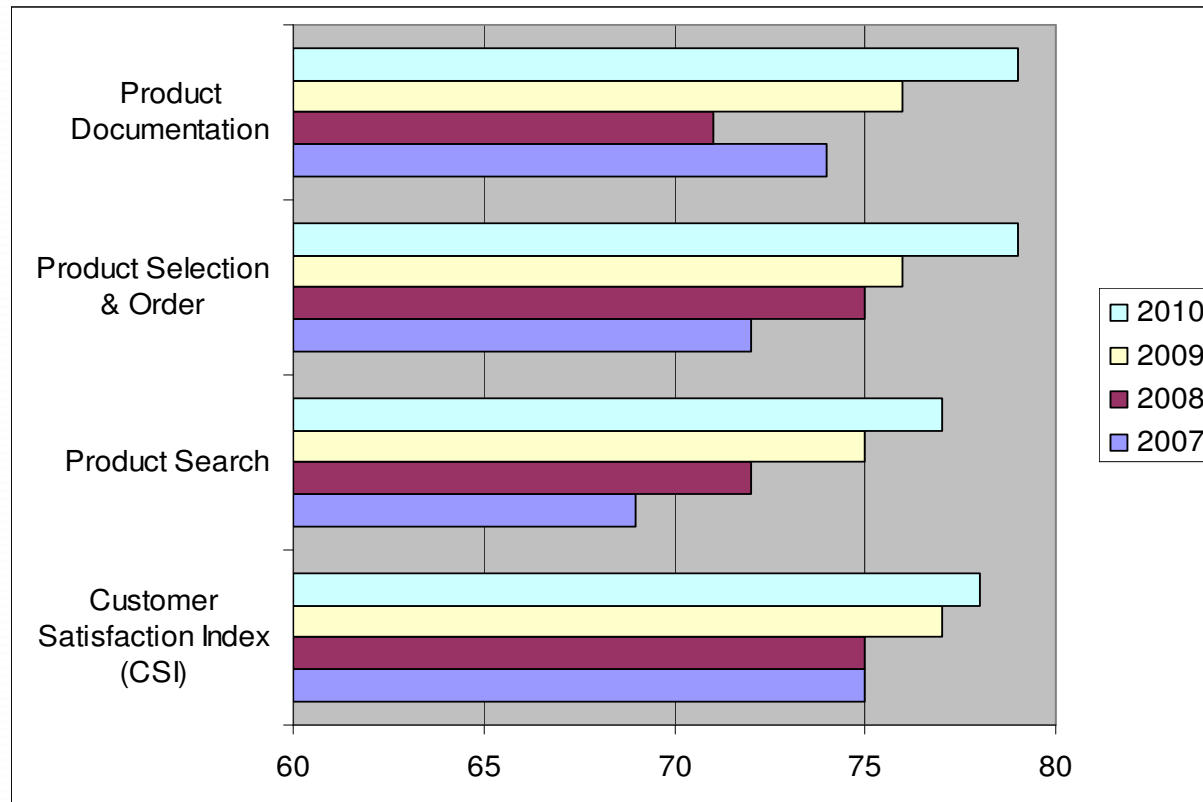


ORNL DAAC requests that data be cited in list of references; some authors “refer” to data in text or acknowledgements

Example Citation

Chambers, J.Q., J.P. Schimel, A.D. Nobre, N. Higuchi, L.V. Ferreira, J.M. Melack, and S.E. Trumbore, 2009. LBA-ECO CD-08 Coarse Wood Litter Respiration and Decomposition, Manaus, Brazil. Data set. Available on-line [<http://daac.ornl.gov>] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. doi:10.3334/ORNLDAAC/911

American Customer Satisfaction Index: ORNL DAAC increased score over last four years



Customer
Satisfaction
Index:
78 ORNL DAAC
77 ESDIS DAACs

6% Response: 166 out of 3,193 sent to
ORNL DAAC Users

Summary of ORNL DAAC Data Activities

- ❑ Archived this FY
 - 10 LBA-ECO data sets
 - 5 ISLSCP II data sets
 - 1 SAR data set
- ❑ Total number of data sets archived at the ORNL DAAC is 893
- ❑ MODIS Subsetting Tool Update
 - Enhanced visualization
 - Preparing for Collection 6
 - exploring several approaches (Parallel computing, GPU...) to speed up the subsetting & handling larger size subsets
 - prototyped subsetting 1-day products,
 - enlarging subsets to 1000 km x 1000 km
- ❑ Added 24 ORNL DAAC data sets to Spatial Data Access Tool

Summary of Data Activities (continued)

- ❑ Technology Infusion Projects
 - SAR Subsets
 - Search for MODIS and ASTER data granules at LP DAAC
- ❑ Download of ORNL DAAC data continues to increase, users remain about the same:
 - In FY 2010, > 700,000 products to ~13,000 users
- ❑ ORNL DAAC data are used in peer-reviewed publications
 - ❑ Based on citations and call-outs, DAAC data sets have been used 115 times in publications in Calendar 2010

